EXHIBIT C

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INGENICO INC.,
Petitioner,

v.

IOENGINE, LLC,
Patent Owner.

IPR2019-00879

Patent 9,059,969

PATENT OWNER'S PRELIMINARY RESPONSE

TABLE OF CONTENTS

I. INTRODUCTION 1
II. RELATED PROCEEDINGS 3
III. THE '969 PATENT 4
A. Pre-AIA Statutes Apply 6
IV. POSITA 6
V. ASSERTED GROUNDS AND REFERENCES 7
A. Iida 7
B. The Fuji Guide 8
C. Shaffer 11
D. Ford 12
VI. CLAIM CONSTRUCTION 12
A. IUI 13
B. GUI 17
C. "communications . . . to a communications network node through the terminal [network] communication interface" and "communication[s] . . . through . . . the terminal network interface to a communications network node" 18
D. Node 20
VII. THERE IS NO REASONABLE LIKELIHOOD THAT PETITIONER WILL PREVAIL ON ANY CLAIM 21
A. Ground 1: Iida Does Not Anticipate Claims 1-8, 10-16, 19-21, 24, 25, or 27-29 21
1. Iida does not teach an "interactive user interface" 21
2. Iida does not teach "communications . . . to a communications network node through the terminal [network] communication interface" or "communication[s] . . . through . . . the terminal network interface to a communications network node" 23

3. Iida does not teach "first program code which, when executed by the terminal processor, is configured to present an interactive user interface on the terminal output component" 26

4. Iida does not teach executing fourth program code/fourth program code configured to be executed "in response to a communication received by the portable device resulting from user interaction with the interactive user interface" 27

5. Iida does not teach "program code which, when executed by the terminal processor, is configured to provide a communications node on the terminal" or "program code [which, when executed by the portable device processor, is configured]/[stored on the portable device memory] to provide a communications node on the portable device" 28

6. The challenged dependent claims are not anticipated by Iida 30

B. Ground 2: Claims 1-8, 10-16, 19-21, and 24-29 are Not Obvious Over Iida and the Fuji Guide 39

C. Ground 3: Claim 4 Is Not Obvious Over Iida in View of Shaffer 45

D. Ground 4: Claim 4 Is Not Obvious Over Iida and the Fuji Guide in View of Shaffer 48

VIII. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY THE PETITION UNDER 35 U.S.C. § 314(A) 50

A. Petitioner and its Indemnitee Sequentially Filed Three Petitions Challenging the '969 Patent and Twelve Petitions Challenging Patent Owner's Patents 51

B. Petitioner Strategically Delayed Filing This Petition to Help its Parent Company in the District Court Proceedings 54

C. The *General Plastic* Factors 55

1. Factor 2: Petitioner Knew or Should Have Known of the Prior Art in this Petition at the Time of its Earlier Petitions 57

2. Factors 4 & 5: Petitioner's Delay After Learning of the Prior Art Asserted in this Petition Weighs Against Institution 58

3. Factors 6, 7, & Stage of District Court Proceedings: Institution Would Be Highly Inefficient 58

4. Additional Factor: The Petition is Weak on the Merits 60

IX. CONCLUSION 61

TABLE OF AUTHORITIES

Cases

Acceleration Bay, LLC v. Activision Blizzard Inc.,
908 F.3d 765 (Fed. Cir. 2018) 9, 10
BASF SE v. Fresenius Med. Care Holdings, Inc.,
IPR2018-00283 (PTAB June 11, 2018) (Paper 7).....58
Blue Coat Sys., Inc. v. Finjan, Inc.,
IPR2016-01441 (PTAB Jan. 23, 2017) (Paper 14).....58
Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.,
289 F.3d 801 (Fed. Cir. 2002) 32, 33
Chevron Oronite Co. LLC v. Infineum USA L.P.,
IPR2018-00923 (PTAB Nov. 7, 2018) (Paper 9) (informative).....61
Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc.,
424 F.3d 1293 (Fed. Cir. 2005) 44
Elbit Sys. Land and C4I Ltd. v. Hughes Net. Sys., LLC,
No. 2-15-cv-37-RWS-RSP, 2016 WL 6082571 (E.D. Tex. Oct. 18, 2016).....19
Ex Parte Haworth, et al.,
No. 2009-000350, 2009 WL 2342033 (BPAI July 30, 2009) 36
Gen. Plastic Indus. Co. Ltd. v. Canon Kabushiki Kaisha,
IPR2016-01357, (PTAB Sep. 6, 2017) (Paper 19) (precedential)..... 51, 55, 58
In re Cronyn,
890 F.2d 1158 (Fed. Cir. 1989) 9
In re Gulack,
703 F.2d 1381 (Fed. Cir. 1983) 31, 34
In re Lowry,
32 F.3d 1579 (Fed. Cir. 1994) 32, 37
In re Nuijten,
500 F.3d 1346 (Fed. Cir. 2007) 32, 37
Ingenico Inc. v. IOENGINE, LLC,
IPR2019-00416 (PTAB July 15, 2019), Paper 20 21
Laird Techs. Inc. v. A.K. Stamping Co. Inc.,
IPR2017-02038, Paper 6 (PTAB Mar. 14, 2018) 10
Lantz Med., Inc. v. Bonutti Research, Inc.,
IPR2015-00995, Paper 11 (PTAB Oct. 21, 2015).....9
Multiform Desiccants, Inc. v. Medzam, Ltd.,
133 F.3d 1473 (Fed. Cir. 1998) 13

NetApp, Inc. v. Realtime Data LLC,
IPR2017-01195 (PTAB Oct. 12, 2017) (Paper 9) 56
NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.,
IPR2018-00752 (PTAB Sep. 12, 2018) (Paper 8) (precedential).....59
Phillips v. AWH Corp.,
415 F.3d 1303 (Fed. Cir. 2005) 13
Praxair Distribution Inc. v. Mallinckrodt Hospital Prods. IP Ltd.,
890 F.3d 1024 (Fed. Cir. 2018) 31, 32, 34, 37
R.J. Reynolds Vapor Co. v. Fontem Holdings 1 B.V.,
IPR2017-01319 (PTAB Nov. 8, 2017) (Paper 7) 54
Redline Detection, LLC v. Star Envirotech, Inc.,
811 F.3d 435 (Fed. Cir. 2015) 43, 45
Thermo Fisher Sci., Inc. v. The Regents of the Univ. of Cal.,
IPR2018-01367, (PTAB Feb. 7, 2019) (Paper 10).....56
Valve Corp. v. Elec. Scripting Prods., Inc.,
IPR2019-00062 (PTAB Apr. 2, 2019) (Paper 13) (precedential) 53, 54, 56, 58
Ventex Co., Ltd. v. Columbia Sportswear N. Am., Inc.,
Case IPR2017-00651 (PTAB Jan. 24, 2019) (Paper 148) (precedential) 52, 53
VirnetX, Inc. v. Cisco Sys., Inc.,
767 F.3d 1308 (Fed. Cir. 2014) 13

Regulations

Trial Practice Guide Update (July 2019) 55, 56, 60

TABLE OF EXHIBITS

Exhibit No.	Description
2003	Declaration of Kevin Butler, Ph.D.
2004	Dennis J. M. J. de Baar et al., *Coupling application design and user interface design*, In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '92), Penny Bauersfeld, John Bennett, and Gene Lynch (Eds.). ACM, New York, NY, USA, 259-266. DOI: https://doi.org/10.1145/142750.142806
2005-2017	Exhibit Numbers Not Used
2018	Ronald Rivest, Chaffing and Winnowing: Confidentiality without Encryption, (http://people.csail.mit.edu/rivest/chaffing-980701.txt)
2019	Complaint, *IOENGINE, LLC v. GlassBridge Enterprises, Inc. (formerly Imation Corp.*), No. 1:14-cv-01572-GMS, D.I. 1 (D. Del. Dec. 31, 2014)
2020	Complaint, *IOENGINE, LLC v. Interactive Media Corp*., No. 1:14-cv-01571-GMS, D.I. 1 (D. Del. Dec. 31, 2014)
2021	Verdict Form, *IOENGINE, LLC v. GlassBridge Enterprises, Inc. (formerly Imation Corp.*), No. 1:14-cv-01572-GMS, D.I. 202 (D. Del. Feb. 17, 2017)
2022	Verdict Form, *IOENGINE, LLC v. Interactive Media Corp*., No. 1:14-cv-01571-GMS, D.I. 160 (D. Del. Jan. 17, 2017)
2023-2028	Exhibit Numbers Not Used
2029	Complaint, *IOENGINE LLC v. PayPal Holdings, Inc.*, No. 1:18-cv-452-WCB, D.I. 1 (D. Del. Mar. 23, 2018)
2030	Answer and Counterclaim, *Ingenico Inc. v. IOENGINE LLC*, No. 1:18-cv-826-WCB, D.I. 12 (D. Del. Aug. 17, 2018)
2031	Scheduling Order, *Ingenico*, No. 18-826, D.I. 57, *PayPal*, No. 18-452, D.I. 49 (Jan. 28, 2019)
2032	Motion to Dismiss and Supporting Brief, *Ingenico*, No. 18-826, D.I. 26-27 (Oct. 9, 2018)
2033	Order setting hearing on Motion to Dismiss, *Ingenico*, No. 18-826, D.I. 43 (Nov. 29, 2018)
2034	Exhibit Number Not Used
2035	Ingenico Inc.'s and Ingenico Corp.'s Answer to Counterclaim, *Ingenico*, No. 18-826, D.I. 68 (Mar. 11, 2019)

Exhibit No.	Description
2036	Excerpt of Ingenico, Inc.'s April 12, 2019 First Amended Initial Contentions Cover Document in *Ingenico*, No. 18-826
2037-2039	Exhibit Numbers Not Used
2040	Excerpts of PayPal Holdings Inc.'s April 5, 2019 Initial Invalidity Contentions Cover Document in *PayPal*, No. 18-452
2041-2044	Exhibit Numbers Not Used
2045	Letter from U.S. Senators Thom Tillis and Christopher A. Coons to the Director of the U.S. Patent and Trademark Office, Apr. 9, 2019
2046	Letter to Judge Bryson regarding withdrawal of Ingenico's motion to dismiss, Ingenico, No. 18-826, D.I. 69 (Mar. 26, 2019)
2047-2061	Exhibit Numbers Not Used
2062	Curriculum vitae of Kevin Raymond Boyce Butler
2063-2068	Exhibit Numbers Not Used
2069	2018-03-23 Letter from Noah Leibowitz to Pentland Walcott
2070	Joint Claim Construction Chart, *IOENGINE LLC v. PayPal Holdings, Inc.*, No. 1:18-cv-452-WCB, D.I. 86 (D. Del. June 25, 2019)
2071	Exhibit Number Not Used
2072	Excerpts of Petition for *Inter Partes* Review, Ingenico Inc. v. IOENGINE, LLC, IPR2019-00416
2073	Excerpts of Petition for *Inter Partes* Review, Ingenico Inc. v. IOENGINE, LLC IPR2019-00584
2074	Highlighted copy of Petitioners Exhibit 1004, FujiFilm Software Quick Start Guide, Petition for Inter Partes Review, Ingenico Inc. v. IOENGINE, LLC IPR2019-0879
2075	Highlighted copy of Petitioners Exhibit 1012, FujiFilm Software Quick Start Guide, Petition for Inter Partes Review, Ingenico Inc. v. IOENGINE, LLC IPR2019-00879
2076	Excerpt of Decision Instituting *Inter Partes* Review, Paper 20, Ingenico Inc. v. IOENGINE, LLC, IPR2019-00416

I. INTRODUCTION

IOENGINE LLC ("IOENGINE" or "Patent Owner") respectfully submits this Preliminary Response together with the Expert Declaration of Kevin Butler, Ph.D. (Ex. 2003) under 35 U.S.C. § 313 and 37 C.F.R. § 42.107, responding to the Petition for *Inter Partes* Review (the "Petition") filed by Ingenico Inc. ("Ingenico" or "Petitioner") challenging claims 1-8, 10-16, 19-21, and 24-29 (the "Challenged Claims") of U.S. Patent No. 9,059,969 (the "'969 Patent"). IOENGINE is the assignee of all rights and interest in the '969 Patent.

The Petition should be denied and *inter partes* review should not be instituted for at least the following reasons: ***First***, the Petition alleges four grounds for unpatentability but does not demonstrate a reasonable likelihood of prevailing on any. As discussed in detail below, none of the cited references disclose multiple claim elements that appear in the independent Challenged Claims. Further, the dependent Challenged Claims have additional limitations which also are not disclosed by the cited references.

In addition, as discussed below with respect to Grounds 2-4, the obviousness arguments in the Petition fail because they do not provide adequate rationale or motivation for combining the cited references to arrive at the Challenged Claims.

Second, the Board should exercise its discretion to deny the Petition under 35 U.S.C. 314(a). The Petition stems from an infringement action that IOENGINE filed

against PayPal Holdings, Inc. ("PayPal"). Ex. 2029. After it received an indemnification request from PayPal, Ingenico injected itself into the litigation by filing a declaratory judgment action. Ex. 1019 ¶¶ 5, 7-9. Ingenico and its indemnitee then proceeded to file a set of serial IPRs. Altogether, Petitioner and its indemnitee have filed a staged sequence of ***twelve*** IPR petitions against the three patents-at-issue in the district court litigation, with ten of the twelve petitions, including this Petition, not filed until nearly the eve of Petitioner's indemnitee's one-year statutory bar date. The resulting unnecessary burden and inefficiency is highlighted by the fact that the district court proceedings have been consolidated before the Honorable William C. Bryson, of the United States Court of Appeals for the Federal Circuit, sitting by designation, with both cases sharing all dates until trial. Ex. 2031. In addition, both Ingenico and PayPal rely for their invalidity cases in the district court on the same references (among others) that are relied on in the Petition. And, because Ingenico waited until more than a year after the litigation against its indemnitee PayPal was filed, and just two weeks from the one-year statutory bar date based on service of that complaint, the final decision in this IPR, if instituted, would not be expected until trials in both district court litigations have concluded.

The problem of serial, vexatious, and inefficient IPR proceedings has become acute. In April 2019, Senators Thom Tillis and Christopher A. Coons of the Senate Judiciary Committee wrote to Director Iancu recommending that the Board take

action to curb such abusive tactics. Ex. 2045. This case is a poster-child for such abuse. Instead of the single, coordinated, efficient district court proceeding pending before Circuit Judge Bryson—into which Petitioner chose to insert itself, and in which the same invalidity theories are raised—Petitioner and its indemnitee seek to multiply the proceedings twelve-fold. The Board should exercise its discretion to preserve efficiency and deny institution under these circumstances.

II. RELATED PROCEEDINGS

The current set of proceedings originated more than a year ago, on March 23, 2018 with IOENGINE's suit against PayPal (the "PayPal Action"). Ex. 2029. After receiving an indemnification request from PayPal, Ingenico filed a declaratory judgment action against IOENGINE on June 1, 2018 (the "Ingenico Action"). Ex. 1019 ¶¶ 5, 7-9. Ingenico acknowledged in its Complaint that the PayPal Action "triggered an indemnity request by PayPal to Ingenico," and relied on this allegation to establish standing. Ex. 1019 ¶ 9. The district court proceedings are now consolidated before the Honorable William C. Bryson, coordinated for fact and expert discovery and claim construction, and sharing all dates until separate trials in July and August, 2020. Ex. 2031. Both cases involve the same three related asserted IOENGINE patents: U.S. Patent Nos. 8,539,047; 9,059,969; and 9,774,703.

The'047 Patent has previously been tried twice to jury verdict for Patent Owner. Exs. 2019, 2021, 2020, 2022. Two different juries found claims of the '047 Patent infringed and not invalid, and awarded damages to IOENGINE. *Id.*

In addition to this Petition challenging the '969 Patent, Ingenico's indemnitee has filed two additional petitions challenging the '969 Patent. Altogether, Ingenico and PayPal have filed twelve petitions challenging the patents-at-issue in the Ingenico and PayPal Actions, as listed in the table below.

Case	Filer	Filed	Patent
IPR2019-00416	Ingenico	12/17/2018	'047
IPR2019-00584	Ingenico	1/22/2019	'703
IPR2019-00879	***Ingenico***	***3/25/2019***	***'969***
IPR2019-00884	PayPal	3/29/2019	'047
IPR2019-00885	PayPal	3/29/2019	'047
IPR2019-00886	PayPal	3/29/2019	'047
IPR2019-00887	PayPal	3/29/2019	'047
IPR2019-00906	***PayPal***	***4/4/2019***	***'969***
IPR2019-00907	***PayPal***	***4/4/2019***	***'969***
IPR2019-00929	Ingenico	4/5/2019	'703
IPR2019-00930	PayPal	4/8/2019	'703
IPR2019-00931	PayPal	4/8/2019	'703

III. THE '969 PATENT

The '969 Patent describes a tunneling client access point ("TCAP") that communicates with both an access terminal (*e.g.*, a cellular telephone or computer) and a remote network device (*e.g.*, a server). Ex. 1001 abstract, 1:19-25, 2:39-51, 3:41-4:30, 18:12-14, Figs. 1, 9-10.

To prevent the terminal from accessing information sent between the TCAP and the server, the TCAP secures the data such that "if data moving out of the TCAP and across the [access terminal] were captured at the [access terminal], such data would not be readable." *Id*. at 13:1-4, 27:28-28:15, Fig. 10. For example, the TCAP preferably includes a Cryptographic Server Module, which can be used to "encrypt all data sent through the access terminal based on the TCAP's unique ID and user's authorization information." *Id.* at 28:12-15. This is not exemplary or permissive language; it is a concept that is captured in the very title of the '969 Patent. *See* '969 Patent at Title ("Apparatus, method and system for a ***tunneling*** client access point "), Abstract ("The disclosure details the implementation of a ***tunneling*** client access point (TCAP) ***that is a highly secure***, portable, power efficient storage and data processing device. The TCAP ***'tunnels' data through*** an access terminal's (AT) input/output facilities."), 2:39-51, 3:41-4:30; Ex. 2003 ¶ 24.

Users interact with the TCAP through an interactive user interface ("IUI") presented by the terminal. Ex. 1001 abstract, 2:39-46, 3:57-62, 17:51-18:3. The IUI "provides a facility through which users may affect, interact, and/or operate a computer system," and is presented to the user on the terminal's output component. Ex. 1001 at 26:19-20, 6:64-67, 7:12-13, 7:45-47, 8:37-41, 9:5-10:46, 12:33-62, 26:7-14, Figs. 4, 5-8, 10; Ex. 2003 ¶ 25.

Applications of the TCAP include, for example, improving the security of accessing remote data, encrypted communication, and secure purchasing, payment and billing. Ex. 1001 at abstract, 2:49-51, 3:64-4:30, 5:32-54, 7:9-8:45, 8:63-9:1, 10:44-61, 12:55-13:27, 19:38-20:24, 27:28-28:15, Figs. 2, 4, 9-10.

A. Pre-AIA Statutes Apply

Petitioner's argument that post-AIA statutes apply seeks an advisory opinion because the prior art status of Petitioner's references does not depend on which statute applies. Moreover, the '969 Patent was filed as a pre-AIA application, and the file history, including office actions and the Notice of Allowability note its pre-AIA status. Ex. 1018 at 115, 161, 167, 210. Finally, the specification fully supports claim 9, which is the only claim Petitioner alleges lacks written description. *See* Ex. 1001, 19:12-15 ("A user programs table 919c includes fields such as, but not limited to: system programs, organization programs, ***programs to be synchronized***, and/or the like."), 27:3−9 (same), 28-31 ("If synchronization is specified 470, then the TCAP will ***provide and receive*** updated data ***to and from*** the backend servers…").

IV. POSITA

A person of ordinary skill in the relevant art ("POSITA") would be a person with a Bachelor of Science degree in Computer Science, or related discipline, and two to three years of experience in developing, implementing, or deploying systems for the encryption of data on a portable device. Ex. 2003 ¶¶ 11-13.

V. ASSERTED GROUNDS AND REFERENCES

Petitioner asserts four grounds for invalidity as summarized on page 5 of the Petition. The art relied on in the Petition is as follows:

A. Iida

Iida describes a digital camera designed to be a lower-cost, rental alternative to more expensive digital cameras that included on-board LCDs. Ex. 1003 [0005]-[0007], [0010]-[0012], [0030], [0036]. The camera can be used to place orders for photographic prints from a remote photo lab. *Id.* abstract, [0004], [0033]-[0036], [0072], [0076], [0138].

Iida's rental camera communicates with a portable communication apparatus or image display apparatus possessed by the user. *Id.* [0014], [0032], [0040], [0041], [0074]. The portable apparatus used with Iida's digital camera can display a menu image, but the menu image is not interactive. *Id*. [0068], [0083]. The user can press number keys on the portable apparatus, whereupon the number pressed on the keypad is transmitted to the camera. *Id*. [0068], [0084], [0093], [0098], Fig. 4C. The camera determines what action to take or whether to generate a new static image for display by the portable apparatus. *Id.* [0084], [0085], [0098]-[0107], Figs. 4A, 4C. Unlike the terminal described in the '969 Patent, the portable apparatus in Iida does not take any action responsive to the user pressing a number key—it simply

transmits the inputted number to the camera. *Id.* [0068], [0084]-[0085], [0097]-[0099], [0130]-[0132]; Ex. 2003 ¶¶ 28-30.

Iida also refers to a personal computer ("PC") which the user requires in order to store and/or print images from the camera. Ex. 1003, [0008], [0067], [0106]-[0107]. There is no indication in Iida that the PC functions as the portable apparatus or is involved in any communication beyond the user's premises.

B. The Fuji Guide

The FUJIFILM Software Quick Start Guide ("Fuji Guide") describes how to install and use certain software for viewing images on a PC. Ex. 1004 *passim*. The Fuji Guide is undated and contains no indication of when, if ever, it was published. The only evidence that Petitioner provides to show publication of the Guide is in the Declaration of Paul Widener, who claims that, "to the best of [his] knowledge" (*i.e.*, from memory of an event eighteen years ago), he purchased a Fuji FinePix 6800 Zoom camera in June of 2001 and the camera was accompanied by the Fuji Guide. Ex. 1005 ¶¶ 4, 14.

Petitioner's reliance on Mr. Widener's alleged receipt of the Fuji Guide with a purchase of a Fuji camera fails to meet the standard of proving that the Fuji Guide constitutes a printed publication before the priority date of the '969 Patent. The proper inquiry is whether the reference was "sufficiently accessible to the public interested in the art" before the relevant date. *In re Cronyn*, 890 F.2d 1158, 1160

(Fed. Cir. 1989). This requires that "persons interested and ordinarily skilled in the subject matter or art, exercising reasonable diligence, can locate it." *Acceleration Bay, LLC v. Activision Blizzard Inc.*, 908 F.3d 765, 772, 774 (Fed. Cir. 2018) (citations omitted). Merely showing that a product was on sale is not sufficient to prove that an accompanying product manual was a printed publication before the relevant date. *Lantz Med., Inc. v. Bonutti Research, Inc.*, IPR2015-00995, Paper 11 (PTAB Oct. 21, 2015), at 8-9.

In this case, Petitioner has presented no evidence that a POSITA would have been able to find the Fuji Guide at any time relevant to this case. There is no evidence, for example, that the Fuji Guide appeared in any index or catalog or was locatable on the Internet during the relevant time period. *See, e.g.*, *Acceleration Bay*, 908 F.3d at 773-74. Even accepting Mr. Widener's testimony, Petitioner provides no evidence that a POSITA would have known that the Fuji Guide would accompany the purchase of a camera, much less been able to seek it out.

There is no evidence that Mr. Widener sought out or requested the Guide; more likely he bought the camera not knowing what documentation would come with it. Mr. Widener does not say from whom purchased the camera or obtained the Fuji Guide. Ex. 1005 ¶¶ 2-16. His declaration is not enough to meet Petitioner's burden of proving that a POSITA, exercising reasonable diligence, could have

searched for and found the Fuji Guide before March 23, 2004. *Acceleration Bay*, 908 F.3d at 772, 774.

Petitioner and its expert Mr. Geier purport to corroborate Mr. Widener's declaration by referring to metadata from a different manual that Petitioner allegedly found online. Petition 10 (referring to Ex. 1012). But the online manual is clearly not the same document as the one provided by Mr. Widener, as shown by the numerous discrepancies highlighted in the copies provided herewith. *See* Ex. 2074 (highlighted version of Ex. 1004), Ex. 2075 (highlighted version of Ex. 1012). Indeed, Petitioner's recently found, online manual appears to be an unfinished draft, since it goes up to page 19 before restarting at page 2, and is missing numerous passages that appear in Mr. Widener's version. *Id*. Furthermore, Petitioner provides no evidence of when Ex. 1012 was published. The metadata on which Mr. Geier relies pertains only to the "create date" and "modify date" of the document, which have no bearing on the publication date. Ex. 1002 ¶ 41. Indeed, date information within a document itself is inadmissible hearsay and insufficient to establish public accessibility. *Laird Techs. Inc. v. A.K. Stamping Co. Inc*., IPR2017-02038, Paper 6 (PTAB Mar. 14, 2018), at 9-10. Even Mr. Geier admits that he is "unable to determine when Fuji web page with the [online version of the] guide was made publicly available." Ex. 1002 ¶ 41. Thus, Mr. Widener's testimony regarding when he obtained the Fuji Guide is uncorroborated.

Even if the Fuji Guide were proven to be prior art, it would not have been obvious to combine it with Iida. Although Iida refers to "a digital still camera 'FinePix 68007' manufactured by Fuji Photo Film Co., Ltd.," it makes no mention of the Fuji Guide. Ex. 1003 [0153]. Moreover, the software described in the Fuji Guide is installed on the user's personal computer ("PC"), which can be located in the user's home or home office. *See, e.g., id*. 2, 3, 5, 7, 33 (referring to "in-house LAN" or "home-office LAN"). The Fuji Guide contains no mention of connecting the camera to a portable apparatus or using the PC in a portable manner. The software described in the Guide does not allow the camera to communicate through the PC to a network or with a server. Instead, the software allows the user to save photos from the camera to a folder on the PC for later access, view thumbnails and full-size images on the screen of the PC, and perform image processing. Ex. 1004, 7 ("images stored on your PC"), 17-18.

C. Shaffer

Shaffer describes a system for controlling access to images created by scanning a customer's exposed film at a photofinishing location, and providing services related to those images. Ex. 1006, Title, Abstract; 1:26-31 ("[A] photography customer would drop off her exposed film at a photofinisher where it would be processed, photographically printed and optionally scanned at a high resolution. . . ."); 2:25-30 (method "includes the steps of: scanning a customer film

image to generating high and low resolution digital versions of the image . . . ."). After the customer's film is scanned, the resulting digital images are processed to produce high and low resolution versions. *Id*. 3:12-17. The customer can store the high-resolution images at an image fulfillment center and the low-resolution versions locally on a floppy diskette. *Id*. 3:28-31, 3:42-48, 4:16-22, 5:4-6, 17-19, Fig. 1. The fulfillment center may provide prints and enlargements of the image or send the difference between the low and high resolution versions of the image so that the high-resolution image can be reconstructed. *Id*. 5:26-30, 5:44-50, 6:6-18; Ex. 2003 ¶ 35.

D. Ford

Ford is a 160-page collection of chapters and a partial chapter from a textbook on secure electronic commerce. The excerpts provided by Petitioner generally discuss cryptography, Internet security, and certificates. There is no identifiable connection between Ford and Iida, Shaffer or the Fuji Guide.

VI. CLAIM CONSTRUCTION

The parties agree that the claims should be accorded their ordinary and customary meaning as understood by one of ordinary skill in the art, in light of the intrinsic record pertaining to the patent. 37 C.F.R. § 42.100(b).

The meaning of a claim term is not evaluated in a vacuum, however, but "in the context of the entire patent, including the specification" and "the prosecution

history." *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (citation omitted). In particular, "the specification 'is always highly relevant to the claim construction analysis [and] [u]sually, it is dispositive; it is the single best guide to the meaning of a disputed term.'" *Id.* at 1315 (citation omitted). Furthermore, "[t]he fact that [a particular characteristic] is 'repeatedly and consistently' used to characterize the invention strongly suggests that it should be read as part of the claim." *VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1318 (Fed. Cir. 2014).

A. IUI

The term "interactive user interface" ("IUI") appears in all independent Challenged Claims, and thus all Challenged Claims. The Board should construe it to mean "a presentation containing interface elements with which a user may interact to result in the terminal taking action responsively by modifying what is presented." Ex. 2003 ¶¶ 37-45.

The claims uniformly require the IUI to be presented on the access terminal, *id*. Abstract, 4:39-64, claims 1, 28, 29 (display on/by "the terminal output component"), Figs. 5-8. Furthermore, the IUI is "interactive" in the sense that the user may manipulate the IUI such that the device on which the IUI resides—the terminal—acts *responsively* to the user's input by modifying what is presented. *Id.* 9:37-48 (when user clicks button, interface "further unfurl[s]" to present options to access facilities and services, including a login button which takes user to a login

screen), 10:16-23 (engaging the interface by dragging and dropping files), 10:64-11:4 (drag and drop), 11:13-31, 61-64 (unfurling interface by graphically opening can of soda), Figs. 5-8. In contrast, if the user's input were simply passed along to a different device, and the device presenting the interface behaved no differently regardless of the user's input, then the user would not be *interacting with* the interactive user interface. Ex. 2003 ¶ 40.

The specification explains that user interaction takes place by way of "computer interaction interface elements such as check boxes, cursors, menus, scrollers, and windows…." '047 Patent at 1:52-62; *see also id*. at Figs. 5-8 (showing various interaction interface elements of an IUI). The interaction interface elements are not simply examples or suggestions. It is these interaction interface elements that "allow for the display, execution, interaction, manipulation, and/or operation of program modules and/or system facilities through textual and/or graphical facilities," and "provide[] a facility through which users may affect, interact, and/or operate a computer system." *Id*. at 17:58-63; *see also* 10:33-47 (engaging an interface element to manipulate data), 11:14-18 (accessing help facilities by "engaging a help facility user interface element").

Indeed, a central purpose of the invention of the Patents-in-Suit is to allow users to interact with the TCAP by employing "traditional large user interfaces" that users "are already comfortable with," as opposed to then-existing portable

computing devices, which had "uncomfortably small user interfaces." *Id*. Summary at 2:25-37. This makes the disclosed TCAP easy to use, as "at most it requires the user to simply plug the device into any existing and available desktop or laptop computer, through which, the TCAP can make use of a traditional user interface and input/output (I/O) peripherals…" *Id*. Summary at 2:37-46.

One problem with Petitioner's construction is that Petitioner's reference to "the computer" is ambiguous. Each Challenged Claim refers to multiple devices that could be considered computers. Ex. 1001 claims 1, 28, 29 (reciting a portable device, a terminal, and a communications network node). As the Petition ***admits***, however, in the '969 Patent "[a] number of the displays respond to text inputs from an input component to elicit ***a responsive action from the terminal***." Petition 13-14 (emphasis added). Thus, both parties agree that it is the terminal, not the portable device, that responds to user interaction. Likewise, the examples of the "baseline" IUIs in the '969 specification (Macintosh Aqua, Windows XP, X-Windows, etc.) all provide for the device presenting the user interface—*i.e.*, the terminal—to take responsive action. Although the claims require that the IUI may ultimately be used to cause the TCAP to execute code, Ex. 1001 at 6:64-67, 7:12-14, 7:45-47, 8:37-41, 9:5-10:46, 12:33-62, the claims require that it is presented on the terminal and the specification consistently and invariably describes the terminal as acting *responsively* to the user's input by modifying what is presented. Accordingly, the

proper construction of interactive user interface should make clear that it is the "***terminal***"—not a generic "computer"—that takes action responsively as a result of user interaction to modify what is presented. Ex. 2003 ¶ 43.

Petitioner's proposed construction of "graphic user interface," which is a specific type of IUI, implicitly acknowledges the need for an IUI to have elements with which a user may interact. According to Petitioner, a graphic user interface is "a display with which ***a user may interact, facilitated by a graphic element displayed thereon***, to result in the computer taking action responsively." Petition 14-15 (emphasis added)[1]

Additionally, Petitioner's definition fails to specify what it means for the user to "interact" with the display and for the device presenting the interface to "take action responsively." The specification shows that what the inventor intended by an IUI was for the terminal to present one or more interface elements for the user to

---

[1] Petitioner attempts to limit IUIs to visual "displays." But the '969 Patent indicates that the IUI can comprise audio and tactile elements. Ex. 1001, 14:58-15:16. Patent Owner's definition uses the term "presentation" to account for this. In the district court proceeding, Petitioner has adopted Patent Owner's position and proposed "presentation" instead of "display" for its construction. Ex. 2070.

"engage" with, and then act responsively to modify the presentation of the interface. These are the "interaction interface elements" (*e.g.*, "check boxes, cursors, menus, scrollers, and windows") to which the specification refers. Ex. 1001 at 1:52-56, 8:19-21, 9:32-48, 10:19-23, 10:32-43, 10:62-11:4, 11:13-31, 11:61-64, Figs. 5-8; Ex. 2003 ¶ 44.

Accordingly, "interactive user interface" should be construed to mean "a presentation containing interface elements with which a user may interact to result in the terminal taking action responsively by modifying what is presented."

B. GUI

The term "graphic user interface" ("GUI") appears in Challenged Claim 21 of the '969 Patent and further limits the IUI of independent claim 1. Petitioner's proposed construction is "a display with which a user may interact, facilitated by a graphic element displayed thereon, to result in the computer taking action responsively." Petition 14-15. Petitioner claims that this is the "ordinary meaning" of the term, but it artificially broadens the term to try to include any interface that displays a "graphic element," ***even if the element is passive and the user does not interact with it***. Petition 14-15, 40-41 (applying the term to passive thumbnail images); Ex. 1003, [0095]-[0096], [0128]. Thus, Petitioner seeks to read out from claim 21 the "interactive user interface" of parent claim 1.

Since the GUI of claim 21 is a type of IUI as recited claim 1, a proper definition of GUI must incorporate the above definition of IUI. Accordingly, the definition of GUI should simply add the word "graphical" to the definition of IUI: "a presentation containing ***graphical*** interface elements with which a user may interact to result in the terminal taking action responsively by modifying what is presented." Ex. 2003 ¶ 46.

C. "communications . . . to a communications network node through the terminal [network] communication interface" and "communication[s] . . . through . . . the terminal network interface to a communications network node"

These terms appear in all independent Challenged Claims and thus all Challenged Claims. They should be construed as "communications sent through the terminal's network interface to a communications network node, without the terminal having access to information being communicated." Ex. 2003 ¶¶ 47-49.

The '969 Patent is directed to a portable device that may communicate with a remote networked device (*e.g.*, a server) by "tunneling" data through the access terminal. Ex. 1001 Title, 1:18-25, 2:39-51, 3:41-4:30, 18:12-14, Figs. 1, 5, 9, 10. "Tunneling" data in the context of the '969 Patent means that the terminal serves as a "conduit" or "bridge" for the TCAP to communicate with the server or other network devices, by sending and receiving data that is intended to be accessed only by the TCAP and/or the server, not the terminal. *Id*. at 4:60-64, 9:5-7, 12:67-13:4,

28:54-57, 27:28-28:15, Fig. 10 ("if data moving out of the TCAP and across the [access terminal] were captured at the [access terminal], such data would not be readable because the data was encrypted by the TCAP's processor").

The tunneling of the TCAP is not merely an exemplary embodiment. It is a core part of the invention, appearing not only in the Title, Abstract, and Field, but in the very name of the device—"tunneling client access point."—referenced repeatedly throughout the patent. Ex. 1001 Title, Abstract ("The TCAP "***tunnels" data through*** an access terminal's (AT) input/output facilities. . . . This enables the user to observe data stored on the TCAP ***without it being resident on the AT***, which can be useful to maintain higher levels of data security. Also, the TCAP may ***tunnel data through an AT*** across a communications network to access remote servers."), Field ("The present invention is directed … more particularly, to an apparatus, method and system to execute and process data by ***tunneling access through*** a terminal."), 1:11-14, 3:41-42, Fig. 2; *see Elbit Sys. Land and C4I Ltd. v. Hughes Net. Sys., LLC*, No. 2-15-cv-37-RWS-RSP, 2016 WL 6082571, at *5 (E.D. Tex. Oct. 18, 2016) (statements in Title, Abstract, Field and Background define the invention).

Petitioner recognized the importance of "tunneling" in its prior petitions on the related '047 and '703 Patents by stating that "encryption is of the essence to a tunneling client." Ex. 2072 (IPR2019-00416 (Paper 1)) at 6; Ex. 20732 (IPR2019-

00584 (Paper 1)) at 6.[2] For example, the '969 Patent discloses that to prevent the terminal from accessing information sent between the TCAP and the remote server, both the TCAP and the server can include cryptographic server modules, which encrypt the data sent through the terminal. *Id*. at 19:38-20:24, 27:28-28:15, Figs. 9, 10. Thus, the terminal has no access to the data tunneled through it. Accordingly, when the claims refer to the portable device communicating with the network node "through" the terminal [network] interface, what it means is that the terminal has no access to information being communicated. Ex. 2003 ¶¶ 47-49.

D. Node

The term "node" appears in all independent Challenged Claims and thus all Challenged Claims. The Board should construe this term to have its plain and ordinary meaning. Petitioner cites a description in the '969 specification of exemplary nodes, Petition 15, but the patent does not state that those examples are meant to be a definition. Ex. 2003 ¶ 50. Furthermore, the term "node" is widely

---

[2] As discussed in Exhibit 2003 ¶ 49, although tunneling does not require encryption, encryption is one way to accomplish what tunneling does require—that the terminal not have access to the tunneled information.

used in computer networks and a POSITA would readily understand it and would not require a definition. *Id*. ¶ 50.

VII. THERE IS NO REASONABLE LIKELIHOOD THAT PETITIONER WILL PREVAIL ON ANY CLAIM

A. Ground 1: Iida Does Not Anticipate Claims 1-8, 10-16, 19-21, 24, 25, or 27-29

As discussed below, Iida does not teach numerous elements of the challenged claims, and therefore cannot anticipate.

1. Iida does not teach an "interactive user interface"

All the Challenged Claims require an IUI. The Board, in a related proceeding recently acknowledged Iida's shortcomings with respect to the IUI elements:

> Based on the current record, we have concerns regarding whether Petitioner's arguments and evidence sufficiently show that Iida discloses the [IUI] limitations recited in claim 1 . . . . Although Iida discloses that '[t]he instruction inputted by the user is transmitted from the portable terminal 14 to the digital still camera 12,' . . . based on the current record, we are not sufficiently persuaded the user interacts with the menu on the display of the portable terminal. Instead, at this juncture, it appears the user is interacting with the numeric keyboard, which is not part of the display.

Ingenico Inc. v. IOENGINE, LLC, IPR2019-00416 (PTAB July 15, 2019), Paper 20 at 79 (citations omitted).

The Board's analysis is correct. All independent Challenged Claims require that the IUI is presented on the "terminal output component." And the "input

component" on the terminal allows the user to interact directly with the interactive user interface that is presented on the terminal. These three elements are distinct requirements of each independent Challenged Claim. Petitioner's arguments ignore these clear requirements, seeking to blur them together avoid having to point to the required disclosures in Iida because Petitioner cannot do so. Petition 24-26.

Further, as discussed in section VI.A, this term should be construed to mean "a presentation containing interface elements with which a user may interact to result in the terminal taking action responsively by modifying what is presented." Thus, the device that presents the interface must respond to the user's input by modifying the presentation. Ex. 2003 ¶¶ 37-45. Iida fails to teach an IUI.

For this limitation, Petitioner cites the static menu image displayed on the display unit of Iida's portable apparatus. Petition 17-20, 24-26 (citing Ex. 1003 [0054], [0065], [0069], [0070], [0083], [0084], [0099]-[0114], [0131], Fig. 4C). But the screen of Iida is not an IUI as used in the '969 Patent, because (1) it presents no interface elements for the user to engage with, and (2) action responsive to user input is not taken by the portable apparatus that displays the image. *Id*. [0084]-[0085], [0098], Fig. 4A. Specifically, the portable apparatus merely displays a static menu image containing a message requesting that the user input numbers on a keypad. *Id*. [0068], [0083]-[0085], [0096], [0143], Figs. 6A-C, 6E-F, 6H-I; Ex. 2003 ¶ 52.

Moreover, the portable apparatus takes exactly the same action regardless of which number the user inputs—transmitting the number to the camera. It does not take action responsively, much less take action responsively to modify what is displayed. Ex. 1003 [0084]. It is the camera in Iida that transmits another fully formed static image to the portable apparatus for display. *Id*. [0083], [0085], [0089], [0096], [0099]; Ex. 2003 ¶ 53.

This is especially evident in Iida's treatment of "scrolling." Rather than true interactive "scrolling" of a display, Iida's apparatus merely "chang[es]-over" a static image on the display: "[W]here the instruction for changing-over (scrolling) the screen has been given by the user, . . . the image selection screen is generated [by the camera] using photographed image data of a plurality of other images (not yet displayed), and the generated information is transmitted to the portable terminal 14, thereby to change-over the image selection screen…" Ex. 1003 [0098]. Thus, Iida does not meet the "interactive user interface" limitation. Ex. 2003 ¶ 54.

2. **Iida does not teach "communications . . . to a communications network node through the terminal [network] communication interface" or "communication[s] . . . through . . . the terminal network interface to a communications network node"**

As discussed above in § VI.C, these limitations, which appear in independent Challenged Claims 1, 28, and 29, require "communications sent through the

terminal's network interface to a communications network node, without the terminal having access to information being communicated."

Petitioner cites passages of Iida that generally describe communications between a portable apparatus and an image server 18. Petition 18-20, 22-24, 26-27 (citing Ex. 1003 [0014], [0069], [0070], [0110], [0113], [0114], [0131], Figs. 4C, 4D). But unlike the '969 Patent, Iida describes no measures to encrypt or secure communications between the camera and the server or to prevent the portable apparatus from having access to the images being sent. Ex. 2003 ¶ 56. Rather, the portable apparatus of Iida has access to the images, since the images are "transferred" to the portable apparatus and displayed on the screen of the apparatus. Ex. 1003 [0013] (images are saved to the server "in such a way that the image data is transferred to the communication apparatus"), [0015], [0029]-[0030] ("transfer component…transfers the image data to the image display apparatus…so that the image…may be displayed on the display unit."), [0039], [0040], [0043]-[0045].

In contrast, the invention described in the '969 Patent secures the information communicated with the network node through the terminal network interface in order to prevent the terminal from accessing it. Ex. 1001, 13:1-4 ("if data moving out of the TCAP and across the [access terminal] were captured at the [access terminal], such data would not be readable because the data was encrypted by the TCAP's processor."), 19:38-20:24 (describing cryptographic server module in the

server), 27:28-28:15 (describing cryptographic server module in the TCAP), Figs. 9, 10; Ex. 2003 ¶ 57. This is a central purpose of "tunneling," which the Petition ignores.

Moreover, the '969 Patent makes clear that there is a distinction between a portable device (1) communicating ***"with"*** or ***"to"*** the terminal, meaning that the terminal has access to the information being communicated (which the terminal may forward along), and (2) communicating to a communications network node ***"through"*** the terminal's network interface, meaning that the information communicated is not accessible to the terminal. The Challenged Claims require both: "facilitate communications ***to*** the terminal and to a communications network node ***through*** the terminal [network] communication interface." Claims 1, 28, 29 (emphasis added). Petitioner's interpretation negates this difference.

Accordingly, Iida does not teach "communications . . . to a communications network node through the terminal [network] communication interface" or "communications . . . through . . . the terminal network communication interface to a communications network node" as required by independent claims 1, 24, and 27. Ex. 2003 ¶¶ 55-58.

3. **Iida does not teach "first program code which, when executed by the terminal processor, is configured to present an interactive user interface on the terminal output component"**

This limitation appears in all the Challenged Claims. As discussed in section VI.A, the Board in the above-referenced proceeding on the related '047 Patent has expressed doubt that Iida discloses an interactive user interface since "it appears the user is interacting with the numeric keyboard, which is not part of the display." IPR2019-00416, Paper 20 at 79.

Moreover, in Iida, every detail of the menu image displayed on the portable apparatus of Iida is dictated by the camera; the portable terminal is not involved in determining either the content or the arrangement of the images or text displayed. Ex. 1003 [0083], [0085], [0089], [0096], [0121], [0132] (describing how menu images are generated by the camera and transmitted to the portable apparatus).

Contrary to the Petitioner's theory, Petition 17-18, it is not sufficient for the control unit 60 of the portable apparatus to "execute[] a process . . . judg[ing] the received information to be information for displaying a screen on the display unit 62," and "display[] the menu screen on the display unit 62 by using the received information." Ex. 1003 [0083]. To present an IUI, the program code executed by the terminal processor would have to be involved in determining what is displayed,

rather than simply displaying exactly what the portable device provides. Iida's portable apparatus merely displays whatever menu image the camera provides. *Id.*

Thus Iida does not anticipate claims 1, 28, and 29. Ex. 2003 ¶¶ 59-61.

4. **Iida does not teach executing fourth program code/fourth program code configured to be executed "in response to a communication received by the portable device resulting from user interaction with the interactive user interface"**

This limitation appears in all the Challenged Claims. Even if Iida disclosed an interactive user interface, which it does not, as discussed above, § VII.A.1, it certainly would not disclose execution of program code "in response to a communication received by the portable device resulting from user interaction ***with*** the interactive user interface."

The user in Iida merely pushes a button on a numeric keypad which, as acknowledged by the Board in the above-referenced, related case involving the '047 Patent, is not part of an IUI, but rather the input component for the portable apparatus. Ex. 1003 [0068], [0084]; IPR2019-00416, Paper 20 at 79. In contrast, the '969 Patent describes the user as directly "engaging" with "interface elements." Ex. 1001 at 1:52-56, 10:32 ("Should the user engage a user interface element…"), 10:37-38 ("engaging the appropriate user interface element…"), 11:13-15, 61-64. It is not sufficient to disclose just any communication to the portable device, it must be a communication that "is received by the portable device resulting from user

interaction ***with*** the interactive user interface." Thus, since the fourth program code limitations require the code to be configured for execution in response to user interaction ***with*** the IUI, Iida does not disclose them. Ex. 2003 ¶¶ 62-63.

5. **Iida does not teach "program code which, when executed by the terminal processor, is configured to provide a communications node on the terminal" or "program code [which, when executed by the portable device processor, is configured]/[stored on the portable device memory] to provide a communications node on the portable device"**

These limitations appear in all the Challenged Claims. Claims 1 and 28 further require the communications node to "facilitate communications to the portable device ***and*** to a communications network node through the terminal network communication interface." In independent Challenged Claim 29, the portable device is configured "to facilitate communications to the terminal ***and*** to a communications network node through the terminal communication interface."

Iida is silent regarding any program code that provides a communications node on either the portable apparatus or the camera, or, as Petitioner contends, "establish[es] terminal 14 as a node" or "establish[es] the camera as a node." Petition 18-20, 22-24 (citing Ex. 1003 [0014], [0045], [0066], [0068]-[0070], [0083], [0084], [0109], [0110], [0113], [0114], [0144]). Petitioner and its expert Mr. Geier speculate that "a POSITA would have understood" or "would understand" that "control unit 60 had executed code to establish the terminal as a node," and "the

camera necessarily includes code in ROM or RAM for establishing the camera as a node." Petition 20, 24; Ex. 1002 ¶¶ 53-54. But they identify nothing in Iida that refers to such program codes. Ex. 2003 ¶ 64.

The Petition is ambiguous as to whether the "communications node on the terminal" is purportedly met by Iida's portable apparatus 14, the second wireless communication unit 68, or the first wireless communication unit 66. Petition 18-19. Yet, none of these components meets the requirements of the "communications node on the terminal." The portable apparatus is already cited as the "terminal," Petition 16, so it cannot also be the "the communications node ***on*** the terminal." Neither the second wireless communication unit, nor the first wireless communication unit can be the communications node, because neither is involved in communication with both the camera (Petitioner's alleged "portable device") ***and*** the server 18 (Petitioner's alleged "communications network node"). Specifically, the second wireless communication unit communicates with the camera but not the server, Ex. 1003 [0083]-[0084], whereas the first wireless communication unit communicates with the telephone network but not the camera, *id*. [0069]. Thus, Petitioner has identified no structure in Iida which meets the requirements of the claimed "communications node on the terminal."

Petitioner similarly conflates the claimed "portable device" with the "communications node ***on*** the portable device," contending that Iida's camera ***is*** a

"portable device," Petition 13, while simultaneously contending that the camera is a "communications node ***on*** the portable device." Petition 22-24. By failing to identify both elements within Iida, Petitioner has failed to meet its burden with respect to the "communications node on the portable device." Therefore, Iida fails to teach these additional program code limitations and cannot anticipate claims 1, 28, and 29. Ex. 2003 ¶¶ 64-65.

6. **The challenged dependent claims are not anticipated by Iida**

Iida does not anticipate the dependent Challenged Claims for at least the reasons discussed above regarding the independent Challenged Claims, and the following additional reasons.

a. **Claim 3**

Claim 3 requires that the communication transmitted to the communications network node "facilitates verification of the ***portable device***." (emphasis added). The Petition applies this limitation to the ***user***-authentication feature of the Iida system, mischaracterizing it as "the same process described in the '969 Patent for verification." Petition 29 (citing Ex. 1003, [0075], [0113]). But the camera in Iida is a rental device which "is used conjointly by a plurality of users." Ex. 1003 [0125]. Thus, the user ID is associated only with the current user, not with the camera. Ex. 1003, [0075] ("When the user has paid the necessary fee, the shop affords **a user**

ID to the user . . . .") (emphasis added).[3] Accordingly, the user ID in Iida cannot be used to verify the portable device. Ex. 2003 ¶ 66.

b. **Claim 4**

Claim 4 specifies that the communication caused to be transmitted to the communication network node "facilitates the transmission of encrypted communications from the communication network node to the terminal." Rather than identifying anything relevant in Iida, Petitioner contends that the "encrypted communications" element should be denied patentable weight under the "printed matter doctrine." Petition 30-32. But Petitioner stretches the printed matter doctrine beyond its boundaries, including those established by Petitioner's own cases.

"Differences between an invention and the prior art cited against it cannot be ignored merely because those differences reside in the content of the printed matter." *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983). It is only if the "printed matter is not functionally related to the substrate [i.e., the medium on which it resides]" that it is not given patentable weight. *Id.*; *Praxair Distribution Inc. v. Mallinckrodt Hospital Prods. IP Ltd.*, 890 F.3d 1024, 1031-32 (Fed. Cir. 2018).

---

[3] The '969 Patent discusses portable device verification separately from user verification. *See* Ex. 1001 7:12-24, 7:64-8:13, 22:40-42, 24:58-62.

Petitioner's argument that the encrypted communications in claim 4 "serves no function" (Petition 32) disregards the functional purpose of encryption, which is to block access to the encrypted information. Indeed, the case law cited by Petitioner cautions against applying the printed matter doctrine to information that is processed by a computer, such as the claimed encrypted communications. *See In re Lowry*, 32 F.3d 1579, 1583 (Fed. Cir. 1994) ("The printed matter cases have no factual relevance where…the information [is] processed…by a machine, the computer."). Petitioner has identified no case to the contrary. Petition 37 (citing *Lowry*, 32 F.3d at 1583; *In re Nuijten*, 500 F.3d 1346, 1365 (Fed. Cir. 2007) (Linn, J., concurring and dissenting); *Praxair*, 890 F.3d 1024 (claim terms unrelated to information processed by a computer)).

The Petition also points out that ***a storage medium*** (*e.g.*, a memory stick) containing encrypted information representing the number of times remaining for the user to save images can be plugged into Iida's camera to copy that information. Petition 32 (citing Ex. 1003 [0150]). But this does not constitute transmitting or receiving encrypted ***communications***, much less encrypted ***communications from a communication network node*** as required by claim 4.

Petitioner misapplies *Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801 (Fed. Cir. 2002). Petition 32. Under *Catalina*, the context of the claim language is important. For example, the same term might be limiting in the body of

a claim, but not in the preamble. *Catalina*, 289 F.3d at 808−11. . Furthermore, in the present case, not only is the term in question in the body of the claim, but unlike in *Catalina*, it relates to a feature (encrypted communications) with the specific technical function of securing information transmitted between, and used by, two machines. Taken in context, the limitation should be considered limiting.

Thus, the limitations relating to transmitting encrypted communications in claim 4 must be given patentable weight and they are not taught by Iida. Ex. 2003 ¶ 67.

c. **Claims 5-11**

Claims 5-11 recite, among other things, that the communication network node comprises a database. A POSITA would understand that a database is more than just a collection of files. It is an ***organized*** collection of data. Ex. 2003 ¶ 68. Non-limiting examples include sets of records that are organized by ordering or creating relations between them. *Id.* The "image data saving areas" of Iida on which Petitioner relies, Petition 33, do not qualify as databases because there is no evidence that they are organized in any way. Ex. 1003 [0070], Fig. 1C.

d. **Claim 7**

Claim 7 specifies that the communication caused to be transmitted to the communication network node "facilitates the download of program code on the communication network node to the terminal." Since Iida does not teach

downloading program code, Petitioner again misapplies the printed matter doctrine, contending that the "program code" limitation should be denied patentable weight. Petition 34. But as discussed above, it is only if the "printed matter is not functionally related to the substrate [i.e., the medium on which it resides]" that it is not given patentable weight. *In re Gulack*, 703 F.2d at 1385; *Praxair*, 890 F.3d at 1031-32.

Petitioner's contention that the program code in claim 7 "provides no function" (Petition 34) disregards what a computer program is. The sole purpose of program code is to impart functionality to the apparatus that runs it. Furthermore, the specification of the '969 Patent explains that the purpose of receiving the program code is to update the device's software. *See* Ex. 1001 at 9:32-37, 19:15-17 (referring to TCAP obtaining program updates from the server). A software update is functionally related to the device receiving it. Thus, the limitations relating to downloading program code in claim 7 must be given patentable weight and are not taught by Iida.

e. **Claim 10**

Claim 10 specifies that the communication transmitted to the communication network node "facilitates synchronizing content on the portable device with content on the communication network node database." The data synchronization described in the '969 Patent involves synchronizing the contents of the portable device and

server, including receiving updated data and program code (*e.g.*, from a server) and overwriting old data and program code in the portable device memory with the updated data, or *vice versa*. Ex. 1001 at 8:28-31; 9:32-37; Ex. 2003 ¶ 70.

In contrast, Petitioner and its expert Mr. Geier contend that any pair of devices with the capability of storing data must "facilitate synchronizing data" as in claim 10, because a user could take the initiative to save images of his or her own choosing. Petition 35; Ex. 1002 ¶ 70. But that is hindsight speculation based on the teachings of the '969 Patent. Iida says nothing about synchronization.

f. **Claims 11 and 12**

Claims 11 and 12 require that the communication transmitted to the communication network node "facilitates the download of a live data feed to the terminal." Since Iida says nothing about a live data feed, Petitioner disregards this claim term, arguing that "[w]hether the data being downloaded is coming from storage or being produced live is of no consequence," and the mere concept of "facilitat[ing] a download" is sufficient to teach downloading a live data feed. Petition 35. But there is no evidence that the portable apparatus of Iida is capable of receiving anything other than individual image files, or that there would be any reason for someone to view or listen to live data feeds on Iida's portable apparatus.

In addition, there is no evidence that the Iida system has enough bandwidth to accommodate live feeds. The only data transmitted in Iida are discrete image data

files, which are not received live, but downloaded in their entirety before being stored or viewed. Ex. 1003, [0106] (entire image transferred to user's PC and saved); [0114] (full image transferred to server, then control unit 52 awaits acknowledgment); [0128] (camera generates image selection screen and transmits the full information to the terminal for display). Thus, Iida does not teach the additional limitations of claims 11 and 12. Ex. 2003 ¶ 71.

Petitioner's reliance on *Catalina* and *Ex Parte Haworth, et al.*, No. 2009-000350, 2009 WL 2342033 (BPAI July 30, 2009), Petition 36, is misplaced. As discussed above, in *Catalina*, the context of the claim language was important. In the present case, the term in question is in the body of the claim, and also relates to a feature with the specific technical function of providing a live data feed to be received and used by a machine. In this context, the limitation should be considered limiting. *Haworth* appears to have involved improperly drafted means plus function claims. 2009 WL 2342033. Neither case involved claims analogous to claim 12 of the '969 Patent.

The "live data feed" limitation of claim 12 should be given weight, and it is not taught by Iida.

g. **Claims 13-16**

Claims 13-16 specify that the portable device is "further configured to affect the presentation of the interactive user interface on the terminal output device." As

discussed above in Section VII.A.1, Iida does not teach an interactive user interface. Therefore, it cannot anticipate claims 13-16. Claim 16 contains the additional limitation that the IUI is affected to present a user name and/or a portable device identifier. The Petition tries to negate this limitation under the "printed matter doctrine." Petition 38 (citing *Lowry*, 32 F.3d at 1583; *Nuijten*, 500 F.3d at 1365; *Praxair*, 890 F.3d 1024). As discussed above, the printed matter doctrine does not apply to information which is processed by a computer or machine. *See*, *e.g.*, *Lowry*, 32 F.3d at 1583. Thus, the user name and/or portable device identifier of claim 16 must be given patentable weight, since it is stored on the portable device memory and presented on the terminal output component.

Petitioner misleadingly quotes the text "SINCE THE CURRENT REMAINING NUMBER OF TIMES IS ZERO, THE CAMERA CANNOT BE USED" in the display of Figure 6B as simply "the camera" to try to argue that it represents a portable device identifier. Petition 38. Petitioner's speculation that the above text "could be written to be more or less specific about the camera or its user," *id*., is not based on anything in Iida.

h. **Claims 19 and 20**

Claims 19 and 20 specify that the portable device is configured to cause the terminal to present an IUI on the terminal output component. As discussed above in

Section VII.A, Iida does not disclose an IUI, and it is the camera, not the portable apparatus, that presents the interface in Iida.

i. **Claim 21**

Claim 21 specifies that the IUI comprises a GUI. As discussed above, the proper definition of a GUI is: "a presentation containing graphical interface elements with which a user may interact to result in the terminal taking action responsively by modifying what is presented."

Petitioner contends that Figure 6E of Iida shows a GUI because (1) it includes static thumbnail images, and (2) according to Petitioner's expert Mr. Geier, "a touch pad was known to manipulate a cursor on graphic displays such as shown in Fig. 6E for making a selection of one of the displayed images." Petition 40−41; Ex. 1002 ¶ 77. But the user does not click, tap, use a cursor on, or otherwise interact with the thumbnails in Iida, but merely looks at them and presses a numeric key separate from the display. Ex. 1003, [0068], [0095]-[0097], [0128]. There is no connection between the "touch pad" in paragraph [0068] and the display illustrated in Fig. 6E, since the only way that the user can react to the display is to "input [the] number affixed to the image" that (s)he wants to view. Ex. 1003, [0097], Fig. 6E. Nothing in Iida suggests using a touch pad to enter a number.

In addition, as discussed above with respect to claim construction, *supra* § VI.B, a GUI, like any IUI, requires the terminal to take action responsively to user

interaction by modifying what is presented. Iida's portable apparatus does not. Rather, it takes the same action regardless of which number the user inputs—transmitting the number to the camera. Ex. 1003 [0084].

Thus, Iida does not meet the "graphic user interface" limitation of claim 21. Ex. 2003 ¶¶ 74-75.

B. Ground 2: Claims 1-8, 10-16, 19-21, and 24-29 are Not Obvious Over Iida and the Fuji Guide

As discussed above, *supra* § V.B, Petitioner has not proven that the Fuji Guide is prior art. Petitioner and its expert also do not identify in the Fuji Guide at least the limitations of independent Challenged Claims 1, 28, and 29 discussed in Sections VII.A.1-5 above.

Among other things, the Fuji Guide does not refer to any program code stored on or executed by the camera, which Petitioner contends is the "portable device" of the claims. Instead, the only software described in the Fuji Guide runs on a PC, which Petitioner contends is the "terminal" of the claims. Ex, 1004, *passim*; Petition 54-61.

Petitioner contends that the FinePixViewer startup window meets the limitation "first program code which, when executed by the terminal processor, is configured to present an interactive user interface on the terminal output component," of the independent Challenged Claims. Petition 57-58. But claims 28

and 29 require that the ***portable device cause*** (claim 28) or ***be configured to cause*** (claim 29) the terminal to execute the first program code. *See also* dependent claims 19 and 20. The Petition cites nothing in the Fuji Guide to suggest that the camera takes any action to cause the FinePixViewer startup window to appear. Rather, the only device involved in displaying that window is the PC, which Petitioner contends is the claimed "terminal." For this additional reason, the Fuji Guide does not fill-in Iida's holes, and Iida and the Fuji Guide, even if combined, could not render obvious Claims 28 and 29.

Likewise, Petitioner does not explain how Iida and the Fuji Guide software would work together to implement fourth program code that is executed or configured to be executed ***by the portable device*** (which Petitioner contends is the camera in each of these references) "in response to a communication received by the portable device resulting from user interaction with the ***interactive user interface***" as required by all the independent Challenged Claims—much less such program code which, when executed by the portable device processor, is configured to cause a communication to be transmitted to the communication network node" as required by claim 2. Iida discloses no IUI and thus cannot disclose program code executed (or configured to be executed) in response to a communication resulting from user interaction with an IUI. And the Fuji Guide does not disclose any program code

executed by the camera. Thus, Iida and the Fuji Guide cannot render any of the Challenged Claims obvious even if combined.

In addition, a POSITA would not have been motivated to combine Iida and the Fuji Guide. It would be technically challenging to adapt the software described in the Fuji Guide to install and run on Iida's portable apparatus because the technical requirements of the Fuji software are substantially greater than what would have been available to a portable apparatus such as a PDA. The Fuji software requires a desktop operating system, a 200 MHZ Pentium Processor, 64 MB of RAM, 300 MB of hard drive space, and an 800 x 600 pixel or better display with at least 16 bits of color or better. Ex. 1004 at 8. These requirements are far beyond what would have been available in a PDA at the time, and certainly beyond what Iida contemplates. Ex. 2003 ¶ 79. Given the differences in the technical requirements, a POSITA trying to combine Iida and the Fuji Guide would have to re-architect the Fuji software code. *Id*.

Combining Iida and the Fuji Guide also would not function without material modification. As discussed above, the menu screen in Iida is generated by the camera, not the portable apparatus. Ex. 1003 [0083], [0085], [0089], [0096], [0121], [0132]. In contrast, the FinePixViewer startup window in the Fuji Guide is generated by software running on the PC. Ex. 1004 at 17. In order to combine the menu screen of Iida and the FinePixViewer startup window of the Fuji Guide, a

POSITA would need to decide which device generates the menu and then reprogram the software accordingly. There is no indication in Iida or the Fuji Guide as to how to make this choice or how this should be accomplished. Ex. 2003 ¶ 80.

It also would make no sense in the Iida system, where the camera performs all of the processing, to employ the interface of the Fuji Guide, where the PC performs all of the processing. Ex. 1004, *passim*. Nor would there be any reason for the Fuji interface to communicate with the camera in the manner of Iida, because the images are stored in and viewable on the PC using the Fuji Guide interface. Ex. 1004, 17-18, 37-38. There is also no need for the camera in the Fuji Guide to communicate with an outside network like that contemplated by Iida, because the PC in the Fuji Guide handles all communications with the server. Ex. 1004, *passim*; Ex. 2003 ¶ 81.

The Petition cites Iida's mention of the FinePix6800z camera, Petition 54, but fails to acknowledge that Iida contains no mention of the Fuji Guide. Ex. 1003 [0153]. The Fuji Guide describes software to be installed on the home PC of a user who owns, not rents, a camera. Ex. 1004, 3 ("Thank you for ***purchasing*** these FUJIFILM products.") (emphasis added), 9 (referring to "the particular camera model you ***purchased***") (emphasis added); Ex. 1005 ¶ 3 (Petitioner's witness Mr. Widener purchased, not rented, his camera). The purpose of Iida, in contrast, is to provide a lower-cost, ***rental*** alternative to more expensive digital cameras at the

time that included on-board LCDs. *See supra* § V.A. Even assuming that the Fuji Guide were provided with the ***purchase*** of a camera as Mr. Widener alleges, there is no evidence that the Guide or the software described in it would have been provided to a camera ***renter*** as contemplated by Iida. To the contrary, a typical user in 2004 would have no interest in installing a suite of new software on his/her home computer in order to rent a camera temporarily. Ex. 2003 ¶ 82. Thus, the systems described in the two references are for different purposes. *E.g.*, *Redline Detection, LLC v. Star Envirotech, Inc.*, 811 F.3d 435, 453 (Fed. Cir. 2015).

Indeed, a key feature of Iida is restricting how many times the renter can take a photo and save the image, which is controlled through a value called the "number of times," representing the remaining number of uses that the renter has paid for. Ex. 1003 [0013], [0033]-[0034], [0050], [0085]-[0090]. The software described in the Fuji Guide is unsuitable for this purpose because it allows the user to save images on his/her home PC without restriction, thus defeating the usage-control feature of the Iida system. Ex. 1004, 18.

Next, Iida contemplates portability as a goal, consistently referring to the device connected to the camera as a "portable" apparatus such as a portable telephone, PDA, wearable computer, or mobile computer. Ex. 1003 *passim*. In contrast, there is nothing in the Fuji Guide to suggest that the PC is portable. Thus, the combination would not work for Iida's intended purpose of portability.

Finally, Petitioner does not attempt to identify anything in the Fuji Guide that might be relevant to the additional limitations of dependent Challenged Claims 2-6, 8, 10, 13-16, 19-21, 24, 25, or 27. Petition 54, 56.

Regarding claims 11 and 12, Petitioner contends that it would be obvious to add the videoconferencing capability of the software in the Fuji Guide to Iida's portable apparatus. Petition 62-63. But the Petition identifies nothing in either reference to suggest that a person renting a camera and using it with a portable apparatus such as a PDA would be motivated to use those devices for videoconferencing as described in the Fuji Guide.

Regarding the USB interface in claim 26, Iida mentions wired connections only to say that they are ***disfavored***. Ex. 1003 [0014] (Communication between the devices "should preferably be wireless communication such as the Bluetooth when the labor of connection a communication cable, etc. are considered.") Thus, a POSITA would not be motivated to seek additional ways to make a wired connection, such as USB. Ex. 2003 ¶ 87.

The Petition identifies no technical shortcoming or problem expressed in either Iida or the Fuji Guide that would be solved by combining them, or any way that the systems would be improved by combining them. *See, e.g., Cross Med. Prods., Inc. v. Medtronic Sofamor Danek, Inc*., 424 F.3d 1293, 1321-23 (Fed. Cir. 2005). For example, the Petition refers to Iida's mention of the Fuji camera, Petition

54, but fails to identify any passage in Iida that suggests a need for ***a rental camera user*** to install special software on his/her home computer. To the contrary, the combination would be undesirable, since a renter would not want his/her computer cluttered with software that would become useless as soon as the camera is returned to the rental shop. Ex. 2003 ¶ 88.

Thus, a POSITA would not have considered it obvious to combine Iida and the Fuji Guide, much less to do so to arrive at any Challenged Claim.

C. Ground 3: Claim 4 Is Not Obvious Over Iida in View of Shaffer

In their discussion of Ground 3, Petitioner and its expert do not identify in Shaffer any of the foregoing limitations of independent Challenged Claim 1 which, as discussed above with respect to Ground 1, are missing from Iida. For at least that reason, Petitioner fails to meet its burden with respect to Ground 3.

In addition, a POSITA would not have been motivated to combine Iida and Shaffer. First, the systems described in the two references are for different purposes. *E.g., Redline*, 811 F.3d at 453. As discussed above, the system in Iida is for providing a lower-cost, rental alternative to more expensive ***digital*** cameras at the time that included on-board LCDs, whereas the Shaffer system is for processing and printing images from a ***film*** camera. *See supra* § V.A, V.C. Although Iida describes a remote photo lab that produces prints based on digital images from the camera, Ex. 1003 Abstract, [0004], [0033]-[0036], [0072], [0076], [0138], there is no indication

that Iida's photo lab is capable of processing film. Moreover, because Iida's camera is digital, it would make no sense to combine it with Shaffer's film-scanning system.

In addition, claim 4 refers to encrypted communications, yet Petitioner cites nothing in Iida to suggest a concern about the security of camera images that might motivate a POSITA to incorporate the concepts of Shaffer. The only information that Iida considers sensitive enough to encrypt is the remaining number of times that the user is allowed to use the camera. Ex. 1003 [0150]; Ex. 2003 ¶ 91. Petitioner and its expert Mr. Geier contend that (1) "many customers prefer that the photographs or the ordering information not be disclosed to the public"; and (2) "[a] POSITA, having Iida in hand, would have been motivated to look to Shaffer as Shaffer describes methodologies for secure transmission of image data over the Internet." Petition 65-66; Ex. 1002 ¶ 105. But neither Petitioner nor Mr. Geier identify any teaching ***in Iida*** that would inspire their hypothetical POSITA with "Iida in hand" to seek ways to secure the transmission of images.

In addition, Shaffer encrypts a high-resolution image or the difference between a high-resolution image and its low-resolution counterpart, used to receive or reconstruct a high-resolution image at the customer site. Ex. 1006, 5:46-47, 6:6-18. There is no suggestion in Iida of a need to create different high- and low-resolution versions of an image. Nor would there be any reason to receive or reconstruct a high-resolution image within the portable apparatus of Iida, because

PDAs in the relevant time period (ca. 2004) did not commonly have screens with sufficient resolution to view a high-resolution image. Ex. 2003 ¶ 92. Indeed, Iida contemplated only a "display quality" resolution of 100,000 (equivalent to 316 x 316) pixels, which was sufficient for "displaying the thumbnail image and checking the content thereof," but would not have been sufficient to view the 3072 x 2048 pixel, high-resolution images of Shaffer. Ex. 1003 [0100]; Ex. 1006, 3:17-20; Ex. 2003 ¶ 92. Thus, for the portable apparatus of Iida to receive the encrypted high-resolution data of Shaffer would serve no purpose. Ex. 2003 ¶ 92.

Even if one were to combine Iida and Shaffer, Petitioner has failed to demonstrate that the combination contains the elements of claim 4. First, claim 4 depends from claim 2, including fourth program code, which, when executed by the portable device processor, is configured to cause a communication to be transmitted to the communications network node. According to underlying independent claim 1, the fourth program code is configured to be executed in response to a communication received by the portable device ***resulting from user interaction with an IUI*** presented on the terminal. Shaffer says nothing about what kind of interface the disclosed system might use. Thus, it cannot teach the fourth program code required by claim 4 through its dependence from claims 1 and 2.

In addition, Shaffer's system has only one customer device, personal computer 32. Ex. 1006, Fig. 1. There is no mention of a portable device anywhere

in Shaffer. For claim 4, sending encrypted images is not enough. Shaffer would have to teach, among other things, (1) executing program code by ***a portable device processor*** to cause a communication to be transmitted to a communications network node, and (2) transmission of encrypted communications from the communications network node to a ***terminal***—*i.e.*, a component other than the portable device. Shaffer cannot, because it describes only a single customer device. Ex. 1006, Fig. 1. Accordingly, even if Shaffer were combined with Iida, the combination would not satisfy the limitations of claim 4.

The Petition also cites Ford for the proposition that "encryption techniques were well known." Petition 64, 66. But Petitioner and Mr. Geier identify nothing in Iida or Shaffer that would motivate a POSITA to combine them with the encryption methods of Ford. Petition 66; Ex. 1002 ¶ 106.

Thus, Petitioner has failed to meet its burden for Ground 3.

D. Ground 4: Claim 4 Is Not Obvious Over Iida and the Fuji Guide in View of Shaffer

As discussed above with respect to Ground 1, Iida fails to teach, the limitations of the independent Challenged Claim 1 discussed above in Sections VII.A.1-5. In Ground 4, Petitioner fails to identify any portions of the Fuji Guide or Shaffer that remedy those shortcomings of Iida. Petition 67-68.

In addition, for the reasons discussed above with respect to Grounds 2 and 3, a POSITA would not have considered it obvious to combine Iida with either the Fuji Guide or Shaffer. It also would not have been obvious to combine the Fuji Guide with Shaffer.

The software described in the Fuji Guide allows a user to save and manage photos from a ***digital*** camera. Ex. 1004, at 7. In contrast, as discussed above with respect to Ground 3, *supra* § VII.C, the Shaffer system is for processing and printing images from a ***film*** camera. The Fuji Guide makes no mention of a photo lab for processing film, nor would that make sense, since the camera in the Fuji Guide is digital. Ex. 2003 ¶ 97.

There is also no reason provided in Iida, the Fuji Guide, or Shaffer to combine them, and the Petition identifies none. In particular, claim 4 refers to encrypted communications, yet Petitioner cites nothing in either Iida or the Fuji Guide to suggest a concern about the security of camera images.

Even if one were to combine the systems of Iida, Fuji Guide and Shaffer, the combination would fail to meet the limitations of claim 4. For example, as discussed above with respect to Ground 3, Shaffer describes only a single, non-portable customer device, Ex. 1006 Fig. 1, and thus cannot teach (1) executing program code by a ***portable device processor*** to cause a communication to be transmitted to a communications network node, and (2) transmission of encrypted communications

from the communications network node to a ***terminal***—*i.e.*, a component other than the portable device. The Petition identifies nothing in Iida or the Fuji Guide that remedies this shortcoming of Shaffer. Thus, Petitioner has failed to meet its burden with respect to Ground 4.

VIII. THE BOARD SHOULD EXERCISE ITS DISCRETION TO DENY THE PETITION UNDER 35 U.S.C. § 314(a)

The Board should deny the Petition because institution would be inefficient and wasteful of the Board's and the parties' resources. ***First***, after Petitioner injected itself into the district court proceedings and delayed for months, Petitioner and its indemnitee, PayPal, seek to unreasonably and vexatiously multiply the proceedings by filing a staged series of ***three*** separate IPR petitions on the '969 Patent, and altogether ***twelve*** IPR petitions on the three patents at issue in the district court. ***Second***, Petitioner's delay in filing the Petition until just two weeks before its indemnitee's one-year statutory bar date[4]—intended to give Petitioner's parent

[4] Although Petitioner's indemnitee, PayPal, was not served with the complaint until April 10, 2018, the complaint was filed and sent to PayPal on March 23, 2018. Ex. 2069. Thus, this Petition (and nine others by Petitioner or its indemnitee) were filed more than a year after Petitioner's indemnitee was on notice of IOENGINE's infringement allegations.

company an advantage in the district court—will now result in a wasteful race to judgment between the Board and the district court.

Ingenico's Petition represents prejudicial gamesmanship and wasteful inefficiency, and thus negatively impacts "both the efficiency of the *inter partes* review process and the fundamental fairness of the process for all parties." *Gen. Plastic Indus. Co. Ltd. v. Canon Kabushiki Kaisha*, IPR2016-01357, slip op. at 18 (PTAB Sep. 6, 2017) (Paper 19) (precedential).

A. Petitioner and its Indemnitee Sequentially Filed Three Petitions Challenging the '969 Patent and Twelve Petitions Challenging Patent Owner's Patents

Months after IOENGINE filed the PayPal Action, Petitioner injected itself into the district court proceedings by filing the Ingenico Action. *See supra* § II. The district court proceedings are now coordinated for fact and expert discovery and claim construction, and share all dates until trial, to maximize procedural efficiency and minimize burden on the parties and court. Ex. 2031.

Petitioner's interests are closely aligned with those of PayPal, and Petitioner should have identified PayPal as a real party in interest.[5] Indeed, Petitioner acknowledged in its mandatory notices that it has an indemnification agreement with PayPal (Paper 6 at 1), and its declaratory judgment complaint relies on PayPal's indemnification request for purposes of standing. Ex. 1019 ¶ 9. Petitioner has further acknowledged that PayPal is its customer, and that certain products accused of infringement in the PayPal Action are "supplied to PayPal by Ingenico." Ex. 1019 ¶¶ 7-8, 10. IOENGINE has asserted infringement claims against both Ingenico and PayPal in the district court. Exs. 2029, 2030. Under these circumstances, the relationship between Petitioner and PayPal "incentivizes both parties to invalidate claims of [IOENGINE's asserted patents]" and "[i]n that sense, [PayPal] is a clear beneficiary of [Petitioner's] efforts in this *inter partes* review, and it follows readily

[5] This is important at least "to ensure that third parties who have sufficiently close relationships with IPR petitioners would be bound by the outcome of instituted IPRs under § 315(e), the related IPR estoppel provision." *See Ventex Co., Ltd. v. Columbia Sportswear N. Am., Inc.*, Case IPR2017-00651, slip op. at 6 (PTAB Jan. 24, 2019) (Paper 148) (precedential).

that [Petitioner] represents [PayPal's] interests in this proceeding." *See Ventex*, IPR2017-00651, slip op. at 8.

In its declaratory judgment complaint, Petitioner studiously avoided seeking a judgment of invalidity, indicating that it had already formulated its strategy of staged IPR challenges as early as June 2018. *See* Ex. 1019. More than a year after the PayPal Action was filed, nine months after filing its own declaratory judgment action, and three months after filing its first IPR petition in this set of proceedings, Ingenico filed this Petition challenging the '969 Patent (based on the same primary reference, Iida, as its earlier petitions). Shortly thereafter, Petitioner's indemnitee, PayPal, filed two more petitions challenging the '969 Patent. Where two petitioners are codefendants accused of infringing the same patents based on the same products, their decision to file sequential petitions weighs in favor of discretionary denial. *Valve Corp. v. Elec. Scripting Prods., Inc.*, IPR2019-00062, slip op. at 9-10 (PTAB Apr. 2, 2019) (Paper 13) (precedential).

In addition to this Petition, Petitioner has filed three additional IPR petitions challenging the related '047 and '703 Patents (all of which rely on Iida as the primary reference). Finally, Petitioner raised invalidity in the district court as well in its answer to IOENGINE's counterclaim, and served invalidity contentions that incorporate by reference all the IPR petitions filed by Petitioner and its indemnitee and all the art cited therein. Ex. 2035 at 112-13; Ex. 2036 at 6-7.

This Petition should thus be considered in its proper context alongside the other two petitions against the '969 Patent and the total of eleven other petitions in Petitioner and its indemnitee's campaign, and should be denied.

B. Petitioner Strategically Delayed Filing This Petition to Help its Parent Company in the District Court Proceedings

Petitioner timed this Petition to its strategic benefit in the district court, which is improper. *See Valve*, IPR2019-00062, slip op. at 13-14 (rejecting excuse for delay); *R.J. Reynolds Vapor Co. v. Fontem Holdings 1 B.V.*, IPR2017-01319, slip op. at 11 (PTAB Nov. 8, 2017) (Paper 7) (Board considers "non-strategic reasons" for delay). IOENGINE asserted infringement counterclaims against Petitioner's French parent (Ingenico Group S.A.). Ingenico Group S.A. challenged personal jurisdiction by motion to dismiss. Ex. 2032. An issue central to the motion was the extent of the French parent's contacts with the U.S. For Petitioner to name its parent as a real party in interest would be relevant to this analysis.

In an act of procedural gamesmanship, however, Petitioner waited to file its petitions until after the December 17, 2018 hearing in the district court on its motion to dismiss its foreign parent company. Ex. 2033. In fact, the first petition was filed later that day, after the motion was submitted to the district court, and named Ingenico Group S.A. as a real party in interest. In yet another example of procedural gamesmanship, after the district court ordered jurisdictional discovery, Petitioner

withdrew its motion to dismiss just days before the deadline to respond to IOENGINE's jurisdictional discovery requests. Ex. 2046.

After filing its first petition on December 17, 2018 and another approximately a month later, Petitioner then waited over two months (until nearly the eve of its indemnitee's one-year statutory bar date) to file two additional petitions, including this Petition. In the interim, IOENGINE served its initial infringement charts on Petitioner, which, pursuant to the district court scheduling order, Ex. 2031 at 3-4, narrowed the number of claims IOENGINE was asserting. Ingenico's delay in filing this Petition thus gave it the benefit of learning which asserted claims IOENGINE was choosing to focus on in the litigation.

As explained below, the strategic delay of the Petition will, if instituted, result in a highly inefficient and prejudicial process involving overlapping claim construction proceedings and a race to judgment, as a final written decision would be expected after both district court trials.

C. The *General Plastic* Factors

The Board has recognized a set of non-exclusive factors to be considered in exercising its discretion to deny IPR petitions. *Gen. Plastic*, IPR2016-01357, slip op. at 15-16; Trial Practice Guide Update at 23-26 (July 2019) ("TPG Update").

The Board has emphasized that the *General Plastic* factors are not exhaustive, and "additional factors may arise in other cases for consideration, where

appropriate." IPR2016-01367, slip op. at 18; TPG Update at 25-26. Although the *General Plastic* factors focus on follow-on petitions, "[t]here may be other reasons besides the 'follow-on' petition context" in which discretionary denial is appropriate. TPG Update at 25. For example, the Board has also considered the advanced stage of a pending district court proceeding, along with the similarities between that proceeding and the Petition, *see* TPG Update at 25-26; *Thermo Fisher Sci., Inc. v. The Regents of the Univ. of Cal.*, IPR2018-01367, slip op. at 21 (PTAB Feb. 7, 2019) (Paper 10); *NetApp, Inc. v. Realtime Data LLC*, IPR2017-01195, slip op. at 12-13 (PTAB Oct. 12, 2017) (Paper 9); and the merits of the petition, *see* TPG Update at 25.

Congress has taken note of the problem of "abusive serial petitions…either by the same petitioner or different petitioners," and expressed concern that the "*General Plastic* factors only are not sufficient." Ex. 2045 at 1. Indeed, a recently-designated precedential opinion clarifies that, together with the *General Plastic* factors, the Board also considers "any relationship between [the] petitioners" when "different petitioners challenge the same patent." *Valve*, IPR2019-00062, slip op. at 2.

Here, although this is the first petition by Petitioner or its indemnitee challenging the '969 Patent, it should be considered in the context of the other serially filed petitions on related patents and Petitioner's decision to inject itself in the district court litigation. Specifically, the relationship between Petitioner and its

indemnitee, PayPal, the orchestrated effort by Petitioner to unnecessarily multiply these proceedings by first injecting itself into the district court forum—which has now consolidated both Petitioner's and IOENGINE's cases into a single, efficient, coordinated proceeding for all purposes until trial—and then, together with its indemnitee, filing ***three*** staged petitions on the '969 Patent, and ***twelve*** overall, and the overarching deficiencies in the Petition addressed in Section VII, weigh in favor of discretionary denial in their own right, and also cause most of the relevant factors to weigh in favor of discretionary denial.

1. **Factor 2: Petitioner Knew or Should Have Known of the Prior Art in this Petition at the Time of its Earlier Petitions**

Petitioner asserts in this Petition the same primary prior art reference, Iida, that it asserted in its three earlier petitions challenging the related '047 and '703 Patents. The earliest of those petitions was filed more than three months before this Petition. *See* 2072 at 5. Thus, Petitioner unquestionably knew of at least Iida sufficiently in advance of the time of filing that petition. In addition to Iida, this Petition also asserts the Fuji Guide and Shaffer. Petitioner asserts that the Fuji Guide was publicly available as early as 2001 and Shaffer is a patent published approximately two decades ago. Petitioner provides no explanation why it could not have found these references earlier through the exercise of reasonable diligence. *See Blue Coat Sys., Inc. v. Finjan, Inc.*, IPR2016-01441, slip op. at 12 (PTAB Jan. 23,

2017) (Paper 14); *see also Gen. Plastic*, IPR2016-01357, slip op. at 20; *Valve*, IPR2019-00062, slip op. at 10-11.

Here, Petitioner knew of Iida at least since it prepared and filed its earlier petitions, and should have known about the Fuji Guide and Shaffer, so the factor weighs against institution.

2. **Factors 4 & 5: Petitioner's Delay After Learning of the Prior Art Asserted in this Petition Weighs Against Institution**

More than three months elapsed between the time Petitioner unquestionably knew of Iida (and should have known of the Fuji Guide and Shaffer) and the time it filed the Petition, as discussed above. Petitioner provided no explanation for the delay. Under these circumstances, factors 4 and 5 weigh against institution. *See BASF SE v. Fresenius Med. Care Holdings, Inc.*, IPR2018-00283, slip op. at 9 (PTAB June 11, 2018) (Paper 7) (denying institution where petitioner knew of two references and should have known of the others at the time it filed the first petition, which was more than three months before filing the second petition).

3. **Factors 6, 7, & Stage of District Court Proceedings: Institution Would Be Highly Inefficient**

Institution in this matter would present a remarkably inefficient use of the Board's resources, leading to a race to judgment. The district court proceedings are coordinated with common dates until separate trials scheduled for July 27 and

August 10, 2020 for PayPal and Ingenico, respectively. Ex. 2031 ¶ 12. Because Petitioner chose to wait until just two weeks before the one-year statutory bar date based on service of the complaint on its indemnitee in the PayPal Action, a final written decision in this matter, if instituted, would be expected in mid-October 2020, which is ***after*** both district court trials. *Id.* The same is true for the remaining eight staged petitions filed by Ingenico and its indemnitee. Accordingly, the stage of the district court proceedings weighs in favor of denying the Petition. *See NHK Spring Co., Ltd. v. Intri-Plex Techs., Inc.*, IPR2018-00752, slip op. at 20 (PTAB Sep. 12, 2018) (Paper 8) (precedential).

In addition to a race to judgment, institution would also result in overlapping claim construction proceedings and ping-ponging decisions between the Board and the district court. The institution decision in this case would likely be in mid-October 2019, after claim construction briefing and the August 29 district court claim construction hearing are complete, and very close to the October 30 deadline for the close of fact discovery. Ex. 2031 ¶ 6. Institution decisions in the remaining eight cases would also be well after the August 29 claim construction hearing, and possibly after the October 30, 2019 close of fact discovery. *See* Ex. 2031 ¶¶ 3, 7.

Compounding the inefficiency of multiple, overlapping claim construction proceedings is the fact that the district court will likely rule on the very same claim construction issues presented by Ingenico here. Indeed, Ingenico has proposed both

"interactive user interface" and "node" for construction in the district court with nearly identical constructions. *See* Ex. 2070.

Further, the validity issues raised by Petitioner and its indemnitee in the district court overlap those raised in the Petition. Ingenico has incorporated the Petition by reference into its invalidity contentions in the district court, along with all the other petitions that Ingenico and its indemnitee have filed. Ex. 2036 at 6-7. Moreover, Ingenico has presented additional theories involving Iida in the district court. *See* Ex. 2036 at 4. Ingenico has similarly raised Iida with respect to the '703 and '047 Patents. *See* Ex. 2036 at 4-5. Further, Ingenico has indicated it may present at trial any of the invalidity theories raised by PayPal in PayPal's invalidity contentions. Ex. 2036 at 7. PayPal in turn contends Iida anticipates the asserted claims of the '969 Patent. *See* Ex. 2040 at 9-10.

In view of the race to judgment, overlapping claim construction proceedings, and overlapping validity issues, factors 6, 7, and the stage of the district court proceedings weigh heavily against institution.

4. **Additional Factor: The Petition is Weak on the Merits**

As discussed in Section VII above, the Petition is weak on the merits. This factor further supports discretionary denial. *See* TPG Update at 25. Even if Petitioner has met its burden on a few claims, it has failed to meet its burden on so many claims and grounds that the entire petition should be denied. *See Chevron*

Oronite Co. LLC v. Infineum USA L.P., IPR2018-00923, slip op. at 10-11 (PTAB Nov. 7, 2018) (Paper 9) (informative).

IX. CONCLUSION

For the forgoing reasons, the Petition should be denied, and *inter partes* review should not be instituted.

Dated: *July 16, 2019*

/ Derek J. Brader /
Derek J. Brader, reg. no. 71,421
Robert W. Ashbrook, reg. no. 40,920
DECHERT LLP
Counsel for Patent Owner

WORD COUNT CERTIFICATION

Pursuant to 37 C.F.R. § 42.24(d), I certify that this Preliminary Response contains 13,397 words (excluding the title page, table of contents, table of exhibits, this certificate, and the certificate of service), as determined by Microsoft Word.

Dated: *July 16, 2019*

/ Derek J. Brader/
Derek J. Brader, reg. no. 71,421
DECHERT LLP
Counsel for Patent Owner

CERTIFICATE OF SERVICE

I certify that today in

Ingenico Inc. v. IOENGINE, LLC, IPR2019-00879

I caused to be served a copy of:

Patent Owner's Preliminary Response
Exhibits 2003-2004, 2018-2022, 2029-2033, 2035-2036, 2040, 2045-2046, 2062, 2069-2070, 2072-2076
Certificate of Service

upon:

Ingenico Inc., c/o:
Robert M. Asher, rasher@sunsteinlaw.com
Timothy M. Murphy, tmurphy@sunsteinlaw.com
Kerry L. Timbers, ktimbers@sunsteinlaw.com
sunsteinip@sunsteinlaw.com

via:

electronic service to the email addresses above.

Dated: *July 16, 2019*

/ Derek J. Brader /
Derek J. Brader, reg. no. 71,421
DECHERT LLP
Counsel for Patent Owner